

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/623,477
Source: 1 Fwp
Date Processed by STIC: 3/2/05

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/623,477

CRF Edit Date: 3/2/05
Edited by: AS

___ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

___ Corrected the SEQ ID NO. Sequence numbers edited were:

___ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

___ Deleted: ___ invalid beginning/end-of-file text ; ___ page numbers

✓ ___ Inserted mandatory headings/numeric identifiers, specifically:

<2207 in sequences 2,5

___ Moved responses to same line as heading/numeric identifier, specifically:

___ Other:



IFWO

RAW SEQUENCE LISTING

DATE: 03/02/2005

PATENT APPLICATION: US/10/623,477

TIME: 16:09:12

Input Set : N:\Cr3\RULE60\10623477.raw

Output Set: N:\CRF4\03022005\J623477.raw

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1 <110> APPLICANT: Fischer, Robert L.
2     Mizukami, Yukiko
3     The Regents of the University of California
4 <120> TITLE OF INVENTION: Methods for Altering Organ Mass, Controlling Fertility
5     and Enhancing Asexual Reproduction in Plants
6 <130> FILE REFERENCE: 023070-090720US
7 <140> CURRENT APPLICATION NUMBER: 10/623,477
8 <141> CURRENT FILING DATE: 2003-07-18
9 <150> PRIOR APPLICATION NUMBER: US/09/479,855
10 <151> PRIOR FILING DATE: 2000-01-07
11 <160> NUMBER OF SEQ ID NOS: 8
12 <170> SOFTWARE: PatentIn Ver. 2.1
14 <210> SEQ ID NO: 1
15 <211> LENGTH: 2148
16 <212> TYPE: DNA
17 <213> ORGANISM: Arabidopsis thaliana
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19 <223> OTHER INFORMATION: AINTEGUMENTA (ANT) cDNA
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22 <223> OTHER INFORMATION: AINTEGUMENTA (ANT)
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26     caaagaaaaa acaaaagttt gagaaaaatg gtgtgttcgt tgtgtaacca atgattgggt 180
27     tttagcttac tacttcgaga gattataaga aagaaagagt gaagatacat tatagaaaga 240
28     agagaagcag aaaccaaaaa aagaaacc atg aag tct ttt tgt gat aat gat 292
29                               Met Lys Ser Phe Cys Asp Asn Asp
30                               1           5
31     gat aat aat cat agc aac acg act aat ttg tta ggg ttc tca ttg tct 340
32     Asp Asn Asn His Ser Asn Thr Thr Asn Leu Leu Gly Phe Ser Leu Ser
33     10           15           20
34     tca aat atg atg aaa atg gga ggt aga gga ggt aga gaa gct att tac 388
35     Ser Asn Met Met Lys Met Gly Gly Arg Gly Gly Arg Glu Ala Ile Tyr
36     25           30           35           40
37     tca tct tca act tct tca gct gca act tct tct tct tct gtt cca cct 436
38     Ser Ser Ser Thr Ser Ser Ala Ala Thr Ser Ser Ser Ser Val Pro Pro
39     45           50           55
40     caa ctt gtt gtt ggt gac aac act agc aac ttt ggt gtt tgc tat gga 484
41     Gln Leu Val Val Gly Asp Asn Thr Ser Asn Phe Gly Val Cys Tyr Gly
42     60           65           70
43     tct aac cca aat gga gga atc tat tct cac atg tct gtg atg cca ctc 532
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Output Set: N:\CRF4\03022005\J623477.raw

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47	Arg	Ser	Asp	Gly	Ser	Leu	Cys	Leu	Met	Glu	Ala	Leu	Asn	Arg	Ser	Ser			
48		90					95					100							
49	cac	tcg	aat	cac	cat	caa	gat	tca	tct	cca	aag	gtg	gag	gat	ttc	ttt			628
50	His	Ser	Asn	His	His	Gln	Asp	Ser	Ser	Pro	Lys	Val	Glu	Asp	Phe	Phe			
51	105					110				115					120				
52	ggg	acc	cat	cac	aac	aac	aca	agt	cac	aaa	gaa	gcc	atg	gat	ctt	agc			676
53	Gly	Thr	His	His	Asn	Asn	Thr	Ser	His	Lys	Glu	Ala	Met	Asp	Leu	Ser			
54					125					130				135					
55	tta	gat	agt	tta	ttc	tac	aac	acc	act	cat	gag	ccc	aac	acg	act	aca			724
56	Leu	Asp	Ser	Leu	Phe	Tyr	Asn	Thr	Thr	His	Glu	Pro	Asn	Thr	Thr	Thr			
57				140				145					150						
58	aac	ttt	caa	gag	ttc	ttt	agc	ttc	cct	caa	acc	aga	aac	cat	gag	gaa			772
59	Asn	Phe	Gln	Glu	Phe	Phe	Ser	Phe	Pro	Gln	Thr	Arg	Asn	His	Glu	Glu			
60		155					160			165									
61	gaa	act	aga	aat	tac	ggg	aat	gac	cct	agt	ttg	aca	cat	gga	ggg	tct			820
62	Glu	Thr	Arg	Asn	Tyr	Gly	Asn	Asp	Pro	Ser	Leu	Thr	His	Gly	Gly	Ser			
63		170				175				180									
64	ttt	aat	gta	ggg	gta	tat	ggg	gaa	ttt	caa	cag	tca	ctg	agc	tta	tcc			868
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67	atg	agc	cct	ggg	tca	caa	tct	agc	tgc	atc	act	ggc	tct	cac	cac	cac			916
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69				205				210				215							
70	caa	caa	aac	caa	aac	caa	aac	cac	caa	agc	caa	aac	cac	cag	cag	atc			964
71	Gln	Gln	Asn	Gln	Asn	Gln	Asn	His	Gln	Ser	Gln	Asn	His	Gln	Gln	Ile			
72			220					225				230							
73	tct	gaa	gct	ctt	gtg	gag	aca	agc	gtt	ggg	ttt	gag	acg	acg	aca	atg			1012
74	Ser	Glu	Ala	Leu	Val	Glu	Thr	Ser	Val	Gly	Phe	Glu	Thr	Thr	Thr	Met			
75		235					240			245									
76	gcg	gct	gcg	aag	aag	aag	agg	gga	caa	gag	gat	gtt	gta	gtt	gtt	ggt			1060
77	Ala	Ala	Ala	Lys	Lys	Lys	Arg	Gly	Gln	Glu	Asp	Val	Val	Val	Val	Gly			
78		250				255				260									
79	cag	aaa	cag	att	gtt	cat	aga	aaa	tct	atc	gat	act	ttt	gga	caa	cga			1108
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82	act	tct	caa	tac	cga	ggc	gtt	aca	aga	cat	aga	tgg	act	ggg	aga	tat			1156
83	Thr	Ser	Gln	Tyr	Arg	Gly	Val	Thr	Arg	His	Arg	Trp	Thr	Gly	Arg	Tyr			
84			285				290					295							
85	gaa	gct	cat	cta	tgg	gac	aat	agt	ttc	aag	aag	gaa	ggg	cac	agt	aga			1204
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87			300				305					310							
88	aaa	gga	aga	caa	gtt	tat	ctg	gga	ggg	tat	gat	atg	gag	gag	aaa	gct			1252
89	Lys	Gly	Arg	Gln	Val	Tyr	Leu	Gly	Gly	Tyr	Asp	Met	Glu	Glu	Lys	Ala			
90			315				320					325							
91	gct	cga	gca	tat	gat	ctt	gct	gca	ctc	aag	tac	tgg	ggg	ccc	tct	act			1300
92	Ala	Arg	Ala	Tyr	Asp	Leu	Ala	Ala	Leu	Lys	Tyr	Trp	Gly	Pro	Ser	Thr			
93			330				335					340							

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96  345                               350                               355                               360
97  aag aac atg act aga caa gaa tat gtt gca cat ttg aga agg aag agc 1396
98  Lys Asn Met Thr Arg Gln Glu Tyr Val Ala His Leu Arg Arg Lys Ser
99  365                               370                               375
100 agt ggt ttc tct agg ggt gct tcc atc tat aga gga gtc aca aga cat 1444
101 Ser Gly Phe Ser Arg Gly Ala Ser Ile Tyr Arg Gly Val Thr Arg His
102 380                               385                               390
103 cac cag cat gga agg tgg caa gca cgg att ggt aga gtc gct gga aac 1492
104 His Gln His Gly Arg Trp Gln Ala Arg Ile Gly Arg Val Ala Gly Asn
105 395                               400                               405
106 aaa gat ctc tac ctt gga act ttt gga acc caa gaa gaa gct gca gaa 1540
107 Lys Asp Leu Tyr Leu Gly Thr Phe Gly Thr Gln Glu Glu Ala Ala Glu
108 410                               415                               420
109 gct tac gat gta gca gca att aag ttc cgt ggc aca aat gct gtg act 1588
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111 425                               430                               435                               440
112 aac ttt gat atc acg agg tac gat gtt gat cgt atc atg tct agt aac 1636
113 Asn Phe Asp Ile Thr Arg Tyr Asp Val Asp Arg Ile Met Ser Ser Asn
114 445                               450                               455
115 aca ctc ttg tct gga gag tta gcg cga agg aac aac aac agc att gtc 1684
116 Thr Leu Leu Ser Gly Glu Leu Ala Arg Arg Asn Asn Asn Ser Ile Val
117 460                               465                               470
118 gtc agg aat act gaa gac caa acc gct cta aat gct gtt gtg gaa ggt 1732
119 Val Arg Asn Thr Glu Asp Gln Thr Ala Leu Asn Ala Val Val Glu Gly
120 475                               480                               485
121 ggt tcc aac aaa gaa gtc agt act ccc gag aga ctc ttg agt ttt ccg 1780
122 Gly Ser Asn Lys Glu Val Ser Thr Pro Glu Arg Leu Leu Ser Phe Pro
123 490                               495                               500
124 gcg att ttc gcg ttg cct caa gtt aat caa aag atg ttc gga tca aat 1828
125 Ala Ile Phe Ala Leu Pro Gln Val Asn Gln Lys Met Phe Gly Ser Asn
126 505                               510                               515                               520
127 atg ggc gga aat atg agt cct tgg aca tca aac cct aat gct gag ctt 1876
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129 525                               530                               535
130 aag acc gtc gct ctt act ttg cct cag atg ccg gtt ttc gct gct tgg 1924
131 Lys Thr Val Ala Leu Thr Leu Pro Gln Met Pro Val Phe Ala Ala Trp
132 540                               545                               550
133 gct gat tct tga tcaacttcaa tgactaactc tggttttctt ggtttagttg 1976
134 Ala Asp Ser
135 555
136 ctaagtgttt tggtttatct ccggttttat ccggtttgaa ctacaattcg gtttagtttc 2036
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140 <210> SEQ ID NO: 2
141 <211> LENGTH: 555
142 <212> TYPE: PRT
143 <213> ORGANISM: Arabidopsis thaliana

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RAW SEQUENCE LISTING

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TIME: 16:09:12

Input Set : N:\Crf3\RULE60\10623477.raw

Output Set: N:\CRF4\03022005\J623477.raw

144 <220> FEATURE:

145 <223> OTHER INFORMATION: AINTEGUMENTA (ANT)

146 <400> SEQUENCE: 2

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151   Arg Gly Gly Arg Glu Ala Ile Tyr Ser Ser Ser Thr Ser Ser Ala Ala
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153   Thr Ser Ser Ser Ser Val Pro Pro Gln Leu Val Val Gly Asp Asn Thr
154           50           55           60
155   Ser Asn Phe Gly Val Cys Tyr Gly Ser Asn Pro Asn Gly Gly Ile Tyr
156           65           70           75           80
157   Ser His Met Ser Val Met Pro Leu Arg Ser Asp Gly Ser Leu Cys Leu
158           85           90           95
159   Met Glu Ala Leu Asn Arg Ser Ser His Ser Asn His His Gln Asp Ser
160           100          105          110
161   Ser Pro Lys Val Glu Asp Phe Phe Gly Thr His His Asn Asn Thr Ser
162           115          120          125
163   His Lys Glu Ala Met Asp Leu Ser Leu Asp Ser Leu Phe Tyr Asn Thr
164           130          135          140
165   Thr His Glu Pro Asn Thr Thr Thr Asn Phe Gln Glu Phe Phe Ser Phe
166           145          150          155          160
167   Pro Gln Thr Arg Asn His Glu Glu Glu Thr Arg Asn Tyr Gly Asn Asp
168           165          170          175
169   Pro Ser Leu Thr His Gly Gly Ser Phe Asn Val Gly Val Tyr Gly Glu
170           180          185          190
171   Phe Gln Gln Ser Leu Ser Leu Ser Met Ser Pro Gly Ser Gln Ser Ser
172           195          200          205
173   Cys Ile Thr Gly Ser His His His Gln Gln Asn Gln Asn Gln Asn His
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175   Gln Ser Gln Asn His Gln Gln Ile Ser Glu Ala Leu Val Glu Thr Ser
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177   Val Gly Phe Glu Thr Thr Thr Met Ala Ala Lys Lys Lys Arg Gly
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189   Leu Lys Tyr Trp Gly Pro Ser Thr His Thr Asn Phe Ser Ala Glu Asn
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192           355          360          365

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Input Set : N:\Crif3\RULE60\10623477.raw

Output Set: N:\CRF4\03022005\J623477.raw

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197      Arg Ile Gly Arg Val Ala Gly Asn Lys Asp Leu Tyr Leu Gly Thr Phe
198                      405                      410                      415
199      Gly Thr Gln Glu Glu Ala Ala Glu Ala Tyr Asp Val Ala Ala Ile Lys
200                      420                      425                      430
201      Phe Arg Gly Thr Asn Ala Val Thr Asn Phe Asp Ile Thr Arg Tyr Asp
202                      435                      440                      445
203      Val Asp Arg Ile Met Ser Ser Asn Thr Leu Leu Ser Gly Glu Leu Ala
204                      450                      455                      460
205      Arg Arg Asn Asn Asn Ser Ile Val Val Arg Asn Thr Glu Asp Gln Thr
206      465                      470                      475                      480
207      Ala Leu Asn Ala Val Val Glu Gly Gly Ser Asn Lys Glu Val Ser Thr
208                      485                      490                      495
209      Pro Glu Arg Leu Leu Ser Phe Pro Ala Ile Phe Ala Leu Pro Gln Val
210                      500                      505                      510
211      Asn Gln Lys Met Phe Gly Ser Asn Met Gly Gly Asn Met Ser Pro Trp
212                      515                      520                      525
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219 <211> LENGTH: 4228
220 <212> TYPE: DNA
221 <213> ORGANISM: Arabidopsis thaliana
222 <220> FEATURE:
223 <223> OTHER INFORMATION: ANT gene 5' promoter
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227      acatgtgata tcacaatata tatattgaaa ttggaattat tcatattaat gagtttagcat 180
228      taatatatat acgctgacat taccaaccaa atgtttctgc ttttatggat agttctatat 240
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232      atatgttgag tgtcttcagt gctcactggt caagaataat ctcggtttat cctacttgaa 480
233      ctagaagttg atatacataa acacgtgaat attttaacga ccgtacataa acacatgtat 540
234      cgatcaaata caaattatta tgagactaga atccaagatg aggatgactc tagcagaata 600
235      tacacagcta agaatttgta caagagagtc gaaaaataga ttctaatacat ttaaaaaaga 660
236      tatggatttc agttacggat tgatattacc attacgcagt agtacatata cataattttt 720
237      tgtttttgtt ttaccgataa tagaatgaaa atgttgtgtt aaaaatattg gttttactaa 780
238      aactcgtttt atgttaacta tataatgtct ttccgcagt aaattgaaac aaaactgtaa 840
239      taaaaattat gttaagccat tgcaattaaa aaatccacgg gtagtaaadc ctcagaagat 900
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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/623,477

DATE: 03/02/2005
TIME: 16:09:13

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Output Set: N:\CRF4\03022005\J623477.raw

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The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 4

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/623,477

DATE: 03/02/2005

TIME: 16:09:13

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Output Set: N:\CRF4\03022005\J623477.raw

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L:21 M:281 W: Numeric Fields not Ordered, <222> Sort in ascending order!
L:304 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:305 M:281 W: Numeric Fields not Ordered, <222> Sort in ascending order!



IFWO

RAW SEQUENCE LISTING

DATE: 03/02/2005

PATENT APPLICATION: US/10/623,477

TIME: 16:08:21

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Output Set: N:\CRF4\03022005\J623477.raw

1 <110> APPLICANT: Fischer, Robert L.
 2 Mizukami, Yukiko
 3 The Regents of the University of California
 4 <120> TITLE OF INVENTION: Methods for Altering Organ Mass, Controlling Fertility
 5 and Enhancing Asexual Reproduction in Plants
 6 <130> FILE REFERENCE: 023070-090720US
 7 <140> CURRENT APPLICATION NUMBER: 10/623,477
 8 <141> CURRENT FILING DATE: 2003-07-18
 9 <150> PRIOR APPLICATION NUMBER: US/09/479,855
 10 <151> PRIOR FILING DATE: 2000-01-07
 11 <160> NUMBER OF SEQ ID NOS: 8
 12 <170> SOFTWARE: PatentIn Ver. 2.1

**Does Not Comply
 Corrected Diskette Needed**

ERRORED SEQUENCES

140 <210> SEQ ID NO: 2
 141 <211> LENGTH: 555
 142 <212> TYPE: PRT
 143 <213> ORGANISM: Arabidopsis thaliana
 144 <223> OTHER INFORMATION: AINTEGUMENTA (ANT)

insert
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E--> 145 <400> SEQUENCE: 2

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149				20					25					30		
150	Arg	Gly	Gly	Arg	Glu	Ala	Ile	Tyr	Ser	Ser	Ser	Thr	Ser	Ser	Ala	Ala
151				35				40					45			
152	Thr	Ser	Ser	Ser	Ser	Val	Pro	Pro	Gln	Leu	Val	Val	Gly	Asp	Asn	Thr
153		50					55					60				
154	Ser	Asn	Phe	Gly	Val	Cys	Tyr	Gly	Ser	Asn	Pro	Asn	Gly	Gly	Ile	Tyr
155	65					70				75					80	
156	Ser	His	Met	Ser	Val	Met	Pro	Leu	Arg	Ser	Asp	Gly	Ser	Leu	Cys	Leu
157					85				90					95		
158	Met	Glu	Ala	Leu	Asn	Arg	Ser	Ser	His	Ser	Asn	His	His	Gln	Asp	Ser
159			100					105						110		
160	Ser	Pro	Lys	Val	Glu	Asp	Phe	Phe	Gly	Thr	His	His	Asn	Asn	Thr	Ser
161			115					120					125			
162	His	Lys	Glu	Ala	Met	Asp	Leu	Ser	Leu	Asp	Ser	Leu	Phe	Tyr	Asn	Thr
163		130					135					140				
164	Thr	His	Glu	Pro	Asn	Thr	Thr	Thr	Asn	Phe	Gln	Glu	Phe	Phe	Ser	Phe
165			145				150				155				160	
166	Pro	Gln	Thr	Arg	Asn	His	Glu	Glu	Glu	Thr	Arg	Asn	Tyr	Gly	Asn	Asp

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Input Set : N:\AMC\6639128.raw

Output Set: N:\CRF4\03022005\J623477.raw

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172	Cys	Ile	Thr	Gly	Ser	His	His	His	Gln	Gln	Asn	Gln
173		210					215				220	
174	Gln	Ser	Gln	Asn	His	Gln	Gln	Ile	Ser	Glu	Ala	Leu
175		225					230				235	
176	Val	Gly	Phe	Glu	Thr	Thr	Thr	Met	Ala	Ala	Ala	Lys
177				245						250		255
178	Gln	Glu	Asp	Val	Val	Val	Val	Gly	Gln	Lys	Gln	Ile
179			260					265				270
180	Ser	Ile	Asp	Thr	Phe	Gly	Gln	Arg	Thr	Ser	Gln	Tyr
181			275					280				285
182	Arg	His	Arg	Trp	Thr	Gly	Arg	Tyr	Glu	Ala	His	Leu
183		290					295				300	
184	Phe	Lys	Lys	Glu	Gly	His	Ser	Arg	Lys	Gly	Arg	Gln
185		305				310					315	
186	Gly	Tyr	Asp	Met	Glu	Glu	Lys	Ala	Ala	Arg	Ala	Tyr
187				325					330			335
188	Leu	Lys	Tyr	Trp	Gly	Pro	Ser	Thr	His	Thr	Asn	Phe
189			340					345				350
190	Tyr	Gln	Lys	Glu	Ile	Glu	Asp	Met	Lys	Asn	Met	Thr
191			355					360				365
192	Val	Ala	His	Leu	Arg	Arg	Lys	Ser	Ser	Gly	Phe	Ser
193		370					375				380	
194	Ile	Tyr	Arg	Gly	Val	Thr	Arg	His	His	Gln	His	Gly
195		385				390				395		400
196	Arg	Ile	Gly	Arg	Val	Ala	Gly	Asn	Lys	Asp	Leu	Tyr
197				405					410			415
198	Gly	Thr	Gln	Glu	Glu	Ala	Ala	Glu	Ala	Tyr	Asp	Val
199			420					425				430
200	Phe	Arg	Gly	Thr	Asn	Ala	Val	Thr	Asn	Phe	Asp	Ile
201			435					440				445
202	Val	Asp	Arg	Ile	Met	Ser	Ser	Asn	Thr	Leu	Leu	Ser
203		450				455				460		
204	Arg	Arg	Asn	Asn	Asn	Ser	Ile	Val	Val	Arg	Asn	Thr
205		465				470				475		480
206	Ala	Leu	Asn	Ala	Val	Val	Glu	Gly	Gly	Ser	Asn	Lys
207				485					490			495
208	Pro	Glu	Arg	Leu	Leu	Ser	Phe	Pro	Ala	Ile	Phe	Ala
209			500						505			510
210	Asn	Gln	Lys	Met	Phe	Gly	Ser	Asn	Met	Gly	Gly	Asn
211			515					520				525
212	Thr	Ser	Asn	Pro	Asn	Ala	Glu	Leu	Lys	Thr	Val	Ala
213			530				535				540	
214	Gln	Met	Pro	Val	Phe	Ala	Ala	Trp	Ala	Asp	Ser	
215		545				550				555		

RAW SEQUENCE LISTING

DATE: 03/02/2005

PATENT APPLICATION: US/10/623,477

TIME: 16:08:21

Input Set : N:\AMC\6639128.raw

Output Set: N:\CRF4\03022005\J623477.raw

414 <210> SEQ ID NO: 5

415 <211> LENGTH: 548

416 <212> TYPE: PRT

417 <213> ORGANISM: Brassica napus

(2207

418 <223> OTHER INFORMATION: canola AINTEGUMENTA (ANT)

E--> 419 <400> SEQUENCE: 5

```

420 Met Lys Ser Phe Cys Asp Asn Asp Asp Ser Asn Thr Thr Asn Leu Leu
421      1          5          10          15
422 Gly Phe Ser Leu Ser Ser Asn Met Leu Lys Met Gly Gly Gly Glu Ala
423      20          25          30
424 Leu Tyr Ser Ser Ser Ser Ser Ser Val Ala Thr Ser Ser Val Pro Pro
425      35          40          45
426 Gln Leu Val Val Gly Asp Asn Ser Ser Asn Tyr Gly Val Cys Tyr Gly
427      50          55          60
428 Ser Asn Leu Ala Ala Arg Glu Met Tyr Ser Gln Met Ser Val Met Pro
429      65          70          75          80
430 Leu Arg Ser Asp Gly Ser Leu Cys Leu Met Glu Ala Leu Asn Arg Ser
431      85          90          95
432 Ser His Ser Asn Asn His His His Ser Gln Val Ser Ser Pro Lys Met
433      100         105         110
434 Glu Asp Phe Phe Gly Thr His His His Asn Thr Ser His Lys Glu Ala
435      115         120         125
436 Met Asp Leu Ser Leu Asp Ser Leu Phe Tyr Asn Thr Thr His Ala Pro
437      130         135         140
438 Asn Asn Asn Thr Asn Phe Gln Glu Phe Phe Ser Phe Pro Gln Thr Arg
439      145         150         155         160
440 Asn His His Glu Glu Glu Thr Arg Asn Tyr Glu Asn Asp Pro Gly Leu
441      165         170         175
442 Thr His Gly Gly Gly Ser Phe Asn Val Gly Val Tyr Gly Glu Phe Gln
443      180         185         190
444 Gln Ser Leu Ser Leu Ser Met Ser Pro Gly Ser Gln Ser Ser Cys Ile
445      195         200         205
446 Thr Ala Ser His His His Gln Asn Gln Thr Gln Asn His Gln Gln Ile
447      210         215         220
448 Ser Glu Ala Leu Val Glu Thr Ser Ala Gly Phe Glu Thr Thr Thr Met
449      225         230         235         240
450 Ala Ala Ala Ala Ala Lys Lys Lys Arg Gly Gln Glu Val Val Val Gly
451      245         250         255
452 Gln Lys Gln Ile Val His Arg Lys Ser Ile Asp Thr Phe Gly Gln Arg
453      260         265         270
454 Thr Ser Gln Tyr Arg Gly Val Thr Arg His Arg Trp Thr Gly Arg Tyr
455      275         280         285
456 Glu Ala His Leu Trp Asp Asn Ser Phe Lys Lys Glu Gly His Ser Arg
457      290         295         300
458 Lys Gly Arg Gln Val Tyr Leu Gly Gly Tyr Asp Met Glu Glu Lys Ala
459      305         310         315         320
460 Ala Arg Ala Tyr Asp Leu Ala Ala Leu Lys Tyr Trp Gly Pro Ser Thr
461      325         330         335
462 His Thr Asn Phe Ser Val Glu Asn Tyr Gln Lys Glu Ile Asp Asp Met

```

RAW SEQUENCE LISTING

DATE: 03/02/2005

PATENT APPLICATION: US/10/623,477

TIME: 16:08:21

Input Set : N:\AMC\6639128.raw

Output Set: N:\CRF4\03022005\J623477.raw

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463          340          345          350
464  Lys Asn Met Thr Arg Gln Glu Tyr Val Ala His Leu Arg Arg Lys Thr
465          355          360          365
466  Ser Gly Phe Ser Arg Gly Ala Ser Ile Tyr Arg Gly Val Thr Arg His
467          370          375          380
468  His Gln His Gly Arg Trp Gln Ala Arg Ile Gly Arg Val Ala Gly Asn
469          385          390          395          400
470  Lys Asp Leu Tyr Leu Gly Thr Phe Gly Thr Gln Glu Glu Ala Ala Glu
471          405          410          415
472  Ala Tyr Asp Val Ala Ala Ile Lys Phe Arg Gly Thr Asn Ala Val Thr
473          420          425          430
474  Asn Phe Asp Ile Thr Arg Tyr Asp Val Asp Arg Ile Met Ala Ser Asn
475          435          440          445
476  Thr Leu Leu Ser Gly Glu Met Ala Arg Arg Asn Ser Asn Ser Ile Val
477          450          455          460
478  Val Arg Asn Ile Ser Asp Glu Glu Ala Ala Leu Thr Ala Val Val Asn
479          465          470          475          480
480  Gly Gly Ser Asn Lys Glu Val Gly Ser Pro Glu Arg Val Leu Ser Phe
481          485          490          495
482  Pro Thr Ile Phe Ala Leu Pro Gln Val Gly Pro Lys Met Phe Gly Ala
483          500          505          510
484  Asn Val Val Gly Asn Met Ser Ser Trp Thr Thr Asn Pro Asn Ala Asp
485          515          520          525
486  Leu Lys Thr Val Ser Leu Thr Leu Pro Gln Met Pro Val Phe Ala Ala
487          530          535          540
488  Trp Ala Asp Ser
489          545

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/623,477

DATE: 03/02/2005
TIME: 16:08:22

Input Set : N:\AMC\6639128.raw
Output Set: N:\CRF4\03022005\J623477.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 4

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/623,477

DATE: 03/02/2005

TIME: 16:08:22

Input Set : N:\AMC\6639128.raw

Output Set: N:\CRF4\03022005\J623477.raw

L:20 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:21 M:281 W: Numeric Fields not Ordered, <222> Sort in ascending order!
L:145 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:2
L:303 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:304 M:281 W: Numeric Fields not Ordered, <222> Sort in ascending order!
L:419 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:5